Customer No.: 31561
Application No.: 10/064,503
Docket No.: 9170-US-230

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:	
NAKAMURA ET AL.	Examiner: LAWRENCE JR, FRANK M
Serial No.: 10/064,503	Art Unit: 1724
Filed: 07/23/2002	Docket No.: 9170-US-230
For: APPARATUS AND METHOD FOR PURIFYING AIR USED IN CRYOGENIC AIR SEPARATION	

No fee is believed to be due. However, the Commissioner is authorized to charge any fees required in connection with the filing of this paper to account No. 50-2620 (Order No.: 9170-US-230)

AMENDMENT AND RESPONSE TO OFFICE ACTION

U.S. Patent and Trademark Office
Commissioner for Patents
2011 South Clark Place
Customer Window, Mail Stop **Non-Fee Amendment**
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

Sir:

The Office Action mailed September 11, 2003 has been carefully considered. In response thereto, please enter the following amendments and consider the following remarks.

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AMENDMENTS

1. (currently amended) An apparatus for purifying air used as a raw material in cryogenic air separation that separates nitrogen and oxygen mainly by distilling the air at low temperatures, comprising:

an adsorber comprising an adsorption cylinder that comprises a first adsorbing layer and a second adsorbing layer, wherein the first adsorbing layer comprises a first adsorbent capable of selectively adsorbing water in the air and the second adsorbing layer comprises a second adsorbent capable of selectively adsorbing nitrogen oxides and/or hydrocarbons in the air passing the first adsorbing layer, wherein

the second adsorbent comprises an X zeolite containing magnesium ion as an ion-exchangeable cation, and a magnesium-exchange ratio in total cations of the X zeolite is higher than 40%.

Claim 2: canceled

Claim 3: canceled.

4. (currently amended) ~~The~~ An apparatus ~~of claim 1~~ for purifying air used as a raw material in cryogenic air separation that separates nitrogen and oxygen mainly by distilling the air at low temperatures, comprising:

an adsorber comprising an adsorption cylinder that comprises a first adsorbing layer and a second adsorbing layer, wherein the first adsorbing layer comprises a first adsorbent capable of selectively adsorbing water in the air and the second adsorbing layer comprises a second